

II

LEGAL CONSIDERATIONS

A. General Scheme of Governmental Regulation.

The governmental agency vested with authority to license and regulate FM stations is the Federal Communications Commission (Commission). Acting under authority conferred by Congress in the Communications Act of 1934, 47 U.S.C. § 151-609 (1958), the Commission has allocated a radio frequency band to FM broadcasting and has issued regulations which establish a comprehensive scheme for the licensing and supervision of those selected to exploit such channels.¹

The band allocated to FM broadcasting is located between 88 and 108 Megacycles (Mc) and is subdivided into 100 channels which are numbered serially from channel 201 to channel 300, inclusive, and which are each of 200 kilicycle (kc) width.² However, the total number of possible FM stations in the United States is much larger than 100.

FM signals, just as TV and other microwave-type signals, travel in essentially straight or line-of-sight paths. Moreover, they become progressively weaker at increasing distances from the transmitting antennae because the energy radiated from the antennae is necessarily spreading over an ever-increasing area. Thus it is (1) that FM signals will ordinarily travel no farther than a point immediately beyond the horizon as seen from the transmitting

¹ 47 CFR § §1.300-1.364, 3.201-3.591

² 47 CFR §3.201

antennae, and (2) that the quality of the signal, particularly in the region near that horizon and just beyond, will depend upon the strength or "power" of the originally radiated signal. The Commission refers to the former factor as "antennae height above average terrain" (measures in feet a.a.t.) and to the latter as "effective radiated power" abbreviated ERP and measured in watts or kilowatts). By limiting both the antennae height and ERP so that the signal of a particular FM station does not effectively reach beyond, say, 50 miles from the station, the Commission can license another similar station on the same channel (such a station is referred to as a co-channel station) at a location approximately 200 miles from the first.

One further complication exists, however, Broadcasts on a given FM channel electrically interfere with transmission on certain adjacent channels. Thus, if a station is transmitting on Channel 250, it will cause severe disturbances on Channels 249 and 251 (referred to as the "first adjacent channels"), and lesser disturbances on Channels 248 and 252 ("second adjacent channels") and Channels 247 and 253 ("third adjacent channels"). As a result of this phenomenon, a proposed station on Channel 250 would not be authorized unless existing stations on Channels 249, 250 and 251 were no nearer than approximately 200 miles, and existing stations on Channels 247, 248, 252 and 253 were no nearer than approximately 100 miles. Notwithstanding these limitations, however, the size of the United States is such that many thousands of combinations are possible, and indeed, approximately 1250 stations are now licensed to use the existing Channels.

For purposes of making channel assignments the Commission has proposed (by order of December 8, 1961, the Commission indicated that interested persons should proceed on the assumption that its proposal would ultimately become final) five classes of FM stations, designated by the letters A through E.

"Class A" stations would be restricted to maximum ERP of 1000 watts (slightly less than the power consumed by an ordinary toaster) at an antennae height of 250 ft. a.a.t. and at maximum power would have an effective range of about 25 miles.

"Class B" stations would be restricted to maximum ERP of 20,000 watts (about the power consumed by four electric home clothes dryers) at an antennae height of 500 ft. a.a.t. and at maximum power would have an effective range of about 50 miles.

"Class C" stations, which are ordinarily not permitted in the northeastern part of the United States, would be restricted to 100,000 watts at an antennae height of 2000 ft. a.a.t. and at maximum power would have an effective range of about 100 miles.

"Class D" stations³ would be restricted to maximum ERP of 10 watts (one-tenth of the power consumed by an ordinary 100 watt home light bulb), at an antennae height of 100 ft. a.a.t., at maximum power would have a range of about 5 miles, and would be prohibited from carrying any commercial announcement under any circumstances.

"Class E" stations³ would, at least in the northeastern

³ Class D and E stations are denominated "noncommercial educational" (NCE) stations to differentiate them from Class A through C stations, which latter are free to broadcast commercials, if they so desire, within the relatively liberal standards established by the Commission.

part of the United States, be permitted the maximum ERP and range of a Class B station of comparable antennae height, but would be prohibited from carrying any commercial announcements under any circumstances.

Class D and E stations will be assigned to Channels 201 through 220. Channels 221 through 300 will be divided into three groups and stations in each of the other three classes will be assigned to Channels in the group set aside for its class. The Commission has not yet announced the details of such grouping.

In addition to differences outlined above, other variations (which are discussed in a later section) exist between the several classes of stations.

B. The Licensing Process and Its Criteria.

Broadly speaking an applicant for a station license must demonstrate:

- (1) that he is a citizen of the United States, or if a corporation, that it is controlled by such citizens;
- (2) that the applicant is otherwise legally qualified and is financially able to undertake the venture;
- (3) that the proposed station can operate at the tower elevation and location, on the channel and with the ERP proposed, without unduly interfering with co- and first, second and third adjacent channel stations;

- (4) that the proposed station is otherwise technically feasible and soundly designed.*
- (5) that by reason of the type of service (by this it is ordinarily meant the type of program content) proposed the grant of the license would be in the public interest.

* The regulations provide that the transmitter and tower of stations other than NCE stations must be so located as to deliver satisfactory service to the city where the studios are located. (47 CFR § 3.205(c)). The transmitted design must be one approved by the Commission. (47 CFR §§ 3.250, 3.550).

The station must be equipped with approved frequency (47 CFR §§ 3.252 (a), 3.552(a)) and modulation (47 CFR §§ 3.253 (a), 3.553 (a)) monitors and the complete FM broadcast transmitting system must conform to the detailed technical standards set out in 47 CFR § 3.317 (47 CFR §§ 3.254, 3.554). The station transmitter may be operated by remote control (47 CFR §§ 3.274, 3.574).

No special aeronautical study is required for an antennae structure which projects no more than 20 feet above an existing man-made structure. (47 CFR § 17.14). No aeronautical study is required if the antenna structure projects no more than 170 feet from the ground (47 CFR § 17.13) and none is ordinarily required unless the structure projects 500 feet or more beyond the ground. (47 CFR § 17.12). A 20 foot or less structure does not require such treatment. (47 CFR § 17.21).

By reference to past Commission action it may safely be assumed that, with the exception of (3), above, any FM application securing Board of Publications, Administration and Board of Trustees approval will be approved by the Commission. If no objection were raised under (3), above, the application would be processed without hearing and a license would issue in due course. (47 CFR § 1.361)

However, a hearing, at which the applicant would be required to produce at least an engineering, a financial, and a program witness, would be required if the application appears to the Commission staff to conflict electrically with another pending applicant for a new station. An apparent electrical conflict with an existing station might require only the presence of an engineering witness. It is interesting to note that the Commission does not regard the station license as a public utility type franchise and hence does not, in deciding a contested case, consider the competitive effect which the granting of the license would have upon existing stations. Moreover, no priority is given one mutually-exclusive application over another, provided that the later filed of the two is received in time to be heard in regular course with the first filed. (See 47 CFR § 1.362)

Initial licenses granted in this area expire at 3:00 A.M., E.S.T., on August 1, 1963 (47 CFR §§ 3.218, 3.518). An application for a three-year renewal must be made shortly in advance of the expiration date and triannually thereafter. In theory the Commission is expected to reconsider the licensee's fitness and past programming record before renewing the license. In fact the processing of renewals has been entirely analogous to the handling of automobile driver's license renewals, and not more than a handful of station licenses have been refused renewal in the whole history of

radio regulation.

C. Specific Operating Standards
Imposed by the Commission.

In addition to the vague and essentially unenforced program standards described above, a licensee is subject to a number of enforceable (and frequently enforced) operating regulations which are summarized below and which require it to:

(1) Notify the Commission in writing within 30 days of any change in (a) certain information concerning the identities and occupation of the licensee's offices and directors or trustees, (b) the licensee's articles of incorporation and bylaws, and (c) certain network contracts required to be kept on file with the Commission (47 CFR §§ 1.342, 1.343).

(2) File, if commercially operated, an annual revenue and expense statement and statement of investment in tangible broadcast property. (47 CFR §§ 1.341)

(3) Originate in the station's own studios a majority (computed on the basis of duration and not number) of the station's programs (47 CFR § 3.205 (a)).

NOTE: Not applicable to NCE licensees.

(4) Devote to broadcasting operations a minimum of 36 hours per week during hours from 6:00 A.M. to midnight, consisting of not less than five hours in any one day, except Sunday. For cause beyond the

licensee's control operations may be suspended for up to 10 days upon notice to the Commission. (47 CFR § 3.261). NOTES: (a) Princeton and Yale have obtained waivers of this requirement. (b) Not applicable to NCE licensees but hours of actual operation will be taken into consideration for channels exists (47 CFR § 3.561).

(5) Obtain Commission approval for any substantial change in FM transmitting system effected during license period. (47 CFR §§ 3.257, 3.557).

(6) Maintain and operate FM broadcast transmitting equipment in conformity with Commission standards. (47 CFR §§ 3.254(a), 3.317, 3.554(a)).

(7) Perform specified annual tests to FM broadcast transmitting equipment. (47 CFR § 3.254(b)).

NOTE: Not applicable to NCE licensees.

(8) Maintain ERP within 5% above or 10% below power authorized in license. (47 CFR §§ 3.267, 3.567).

(9) Mark and light antenna structure as provided in 47 CFR, Part 17, (47 CFR §§ 270, 570). NOTE: Under favorable circumstances the antenna structure would require neither marking nor lighting.

(10) Perform field intensity readings upon request of Commission. (47 CFR § 3.272). NOTE: Not applicable to NCE licensees.

(11) Keep station open to Commission inspection at any reasonable hour. (47 CFR §§ 3.263, 3.563).

(12) Keep station and operators' licenses conspicuously posted at transmitter's principal control point (47 CFR §§ 3.264, 3.564).

(13) Maintain detailed program logs. (47 CFR §§ 3.281, 3.581).

(14) Make periodic station identification announcements. (47 CFR §§ 3.587).

(15) Identify over the air, with certain exception, all mechanical reproductions. (47 CFR §§ 3.288, 3.588).

(16) Identify sponsorship of commercial programs. (47 CFR § 3.289).

(17) Provide equal time for candidates for public office. (47 CFR §§ 3.290, 3.590).

(18) Subject transmitting apparatus to actual control of one or more holders of first class radio telephone (RT) operator's license, or to control of holder of second, third or restricted class RT operator's license (See 47 CFR, Part 13) if (i) transmitting equipment meets certain specification, (ii) stations' authorized power does not exceed 10 kw, and (iii) licensee has at least one first class RT operator in regular

full time* employment who is responsible for satisfactory operation of transmitting equipment. (47 CFR § 3.265). NOTE: The foregoing requirements are somewhat relaxed for NCE licensees who operate stations having authorized ERP of 1 kw and less. (47 CFR § 3.565).

(19) Notify, in the case of the rebroadcast of any part of the program of another United States Standard or FM broadcast station, the Commission of the call letters of such station, and certify that the licensee of such station has consented to such rebroadcast. (47 CFR §§ 3.291, 3.591).

(20) Refrain from transmitting lotteries. (47 CFR § 3.292). NOTE: Not applicable to NCE licensees but Section 1304 of the Title 18 United States Code imposes a similar and controlling restriction.

(21) Operate multiplexing operations for the provision of so-called "Subsidiary Communications" services (i.e., competitive with wired background music and not to be confused with the more recent stereo-multiplexing) subject to specified regulations. (47 CFR § 3.293). NOTE: NCE licensees are apparently not permitted to engage in such operations.

D. Selection of Class of License. Of the five classes of licenses only two are of interest to the University. Class C licenses are not available in this area. Class A and D licenses

*The first class RT operator may be employed at other duties not inconsistent with supervision of proper operation of FM broadcasting equipment.

are restricted to stations having maximum ERP of 1 kw and 0.01 kw (10 watts), respectively, and would not, for the reasons discussed below in Part III of this report, permit a University station to cover adequately its logical listening area. Of the remaining licenses, Class B has the distinct advantage over Class E (which is a NCE license) of permitting the University to decide when, how and to what extent commercials are to be carried over its station.

Under a Class E license it is questionable, for example, whether a station announcer could state (in signing off) that the station's antenna was located on the top of the Bethlehem Steel Company's Laboratory if, in fact, the Steel Company charged the station less than the fair market value for the use and occupancy of company facilities. Similar courtesy announcements concerning contributions of tapes, records and supplies from business enterprises would be similarly suspect. On the other hand, the possession of a Class B license would not require the University to air as much as a single conventional commercial, if non-commercialism were the then current University policy; but the opportunity to do so would remain.

A review of the licensee's obligations outlined in subpart C, above, indicates that a Class B licensee is in several respects subject to more rigorous regulation than is a Class E licensee. However, these tightened standards are almost exclusively in the technical area, and are comparatively insignificant when

contrasted With the total body of regulations to which both classes of licensees are subjected in any case.

In the Committee's view the Class B license is clearly more desirable than the Class E. However, the University must realistically face the fact that it can presently (although not for long) have a Class E license for the asking, but it will have to move swiftly and determinedly--even to the point of engaging in competitive public hearings with other applicants who are currently seeking to obtain Class A and B licenses which electrically conflict with the University's proposals--if the last of the Class B channels in the area are not to slip away.